

# Underneath Chennai

It's a project most of the city is looking forward to. How is Metro Rail, expected to lessen some of our traffic and transport woes, getting along? Sunitha Sekar takes a look at its underground station work



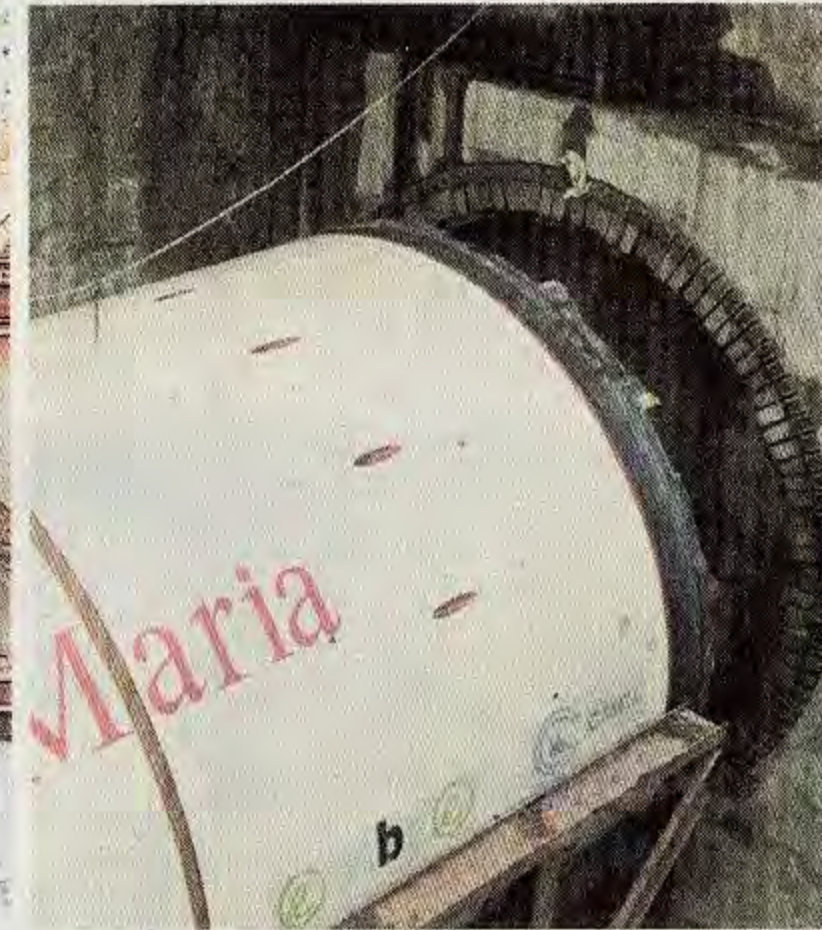
### NEHRU PARK

- Work first began here
- Two TBMs to excavate 930 m to Egmore
- So far, TBMs have excavated 360 m and 310 m respectively



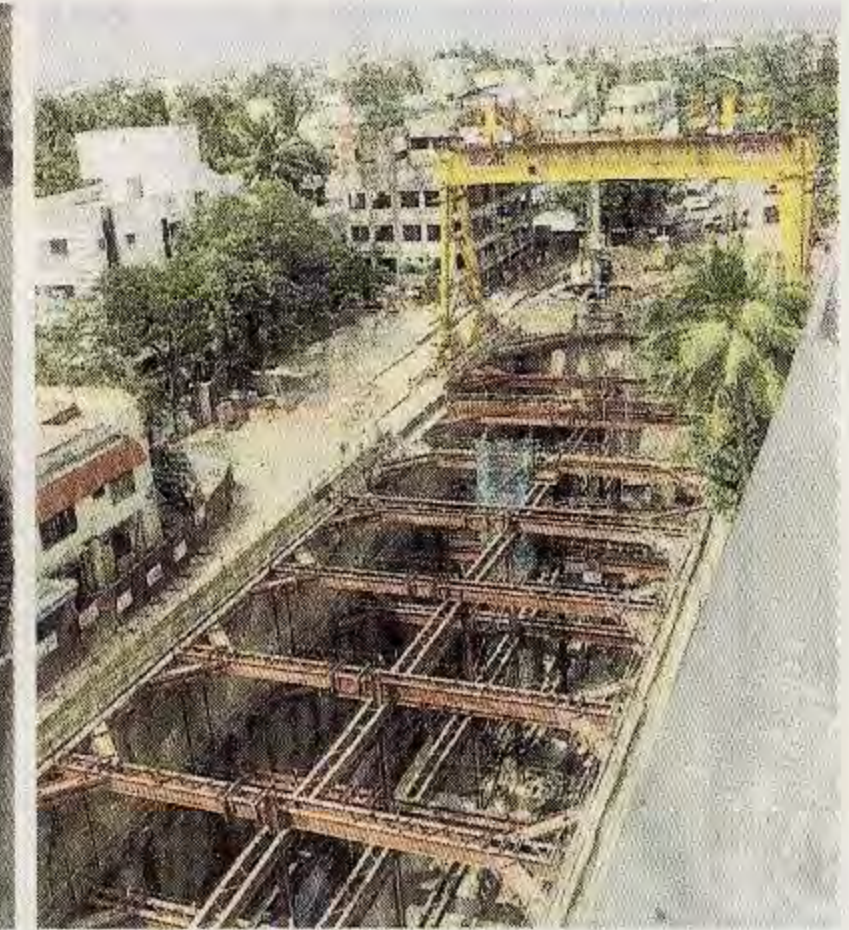
### WASHERMENPET

- Two TBMs to excavate 134.9 m till Chennai Central
- At present excavated 627 m and 92 m respectively



### MAY DAY PARK, CHINTADRIPET SHENOY NAGAR

- Two TBMs of three stationed to excavate 2,820 m from Anna Salai till Gemini
- One has excavated 55m another 7m of its 1,040m
- TBM launched in mid-Jan
- Has drilled 72 m of the 3500 m it has to cover to reach Thirumangalam



For most residents, the construction of underground stations for the city's dream transport project — Metro Rail — is mostly a lot of noise, traffic diversions, and the occasional sight of massive machines.

But behind the heavy iron barricades that dot many of Chennai's arterial roads, tunnel boring machines (TBMs) have been relentlessly drilling through rocky surfaces to make way 19 underground stations that will be part of a complex 24-km underground rail network. And these gigantic devices are being handled by workers not just from India, but also China, South Africa, Russia, Germany and Nepal.

In June last year, Chinese workers arrived in the city and the first TBM began operating in Nehru Park in July. Eight months on, work has progressed considerably, well on its way to meeting the 2015 deadline.

Chennai Metro Rail Limited (CMRL) plans to operate a total of 11 TBMs to tunnel through various areas at its sites, including Nehru Park, Washermenpet, May Day Park, Shenoy Nagar and Saidapet. Of the 11, seven TBMs are fully operational at Nehru Park, Washermenpet, May Day Park and Shenoy Nagar and are at different stages of excavation.

"The progress of the underground work is heavily driven by the geological conditions prevailing in the area. But we are trying our best to foresee changes and meet deadlines," said V. Somasundaram, chief general manager (construction) of CMRL.

"We are making plans in advance to face geological challenges and intend to complete all of the work by 2015. We propose to finish at least 20-30 percent of the station work by the end of 2013," he added.

At present, the May Day Park, Government Estate,

Shenoy Nagar and Saidapet stations have had the diaphragm wall panel (a box-like concrete structure) for the station placed and completed. While the casting of roof slabs (where the entry-exit of the station will be) has taken place at Washermenpet, Saidapet, Kilpauk, Pachaiyappa's College and Thirumanagalam stations, concourse-level work is in progress in Washermenpet and Shenoy Nagar.

In the Anna Salai stretch (corridor I), where as many as seven stations are coming up from Saidapet to Government Estate, the placement of diaphragm wall panels is in progress in most of the stations.

When asked about a possible delay of work during the monsoon season this year and how they plan to tackle it, Mr. Somasundaram said CMRL had made arrangements to cover the openings and also pump out water in case of flooding inside the site.

## SLICE OF A STATION

What it looks like below the ground

